110.3 - USA/Canada Collaborative Materials (powder form)

These materials, developed by Agriculture Canada in collaboration with NIST, are intended for use in evaluating analytical methods and instruments used for the determination of major, minor, and trace constituent elements, as well as proximates selected fatty acids (where appropriate), calories and vitamins in food/agricultural commodities.

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SRM	8412	8413	8414	8415	8418	8432	8433	8436	8437	8438
Description	Corn Stalk (Zea mays)	Corn Kernel (Zea mays)	Bovine Muscle Powder (Beef)	Whole Egg Powder	Wheat Gluten	Corn Starch	Corn Bran	Durum Wheat Flour	Hard Red Spring Wheat Flour	Soft Winter Wheat Flour
Unit of Issue	(34 g)	(47 g)	(50 g (2))	(35 g)	(50 g)	(50 g)	(50 g)	(50 g)	(50 g)	(50 g)
Calcium	0.216*	42	145	0.248*	369	56	420	278	143	240
Chlorine	0.244*	(450)	0.188*	0.508*	0.362*	45	31	680	500	640
Copper	8	3.0	2.84	2.70	5.94	0.06	2.47	4.30	(2.01)	(1.2)
Fluorine	(0.65)	(0.24)	(0.22)		(0.43)	(0.02)		(0.1)	(0.02)	(0.04)
Iron	139	(23)	71.2	112	54.3	(5)	14.8	41.5	31	(29)
Magnesium	0.160*	0.0990*	960	305	510	31	818	0.107*	365	214
Manganese	15	4.0	0.37	1.78	14.3	0.10	2.55	16.0	4.50	5.4
Nitrogen	(6970)	(13750)	13.75*	6.30*	14.64*	680	0.882*	2.709*	2.690*	1.756*
Potassium	1.735*	0.357*	1.517*	0.319*	472	45	566	0.318*	0.115*	0.148
Selenium	(0.016)	(0.004)	0.076	1.39	2.58	(0.0009)	0.045	1.23	0.56	0.076
Sodium	(28)		0.210*	0.377*	0.142*	119	430	16.0	(7)	(7)
Strontium	12		0.052	5.63	1.71	(0.18)	4.62	1.19	(4)	
Zinc	32	15.7	142	67.5	53.8	0.22	18.6	22.2	10.6	(5.8)
Aluminum		(4)	1.7	540	10.8	1.9	1.01	11.7	(2.1)	(2.3)

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Unit of Issue	(34 g)	(47 g)	(50 g (2))	(35 g)	(50 g)	(50 g)	(50 g)	(50 g)	(50 g)	(50 g)
Antimony			(0.01)	(0.002)	(0.01)		(0.004)			
Arsenic			0.009	(0.01)	(0.02)		(0.002)	(0.03)		
Barium			(0.05)	(3)	1.53		2.40	2.11	(0.4)	(1)
Boron			0.6	0.41	(0.4)		2.8		(0.2)	(0.1)
Bromine			1.1		(3.6)		2.3	6.6		
Cadmium			0.013	(0.005)	0.064	0.0003	0.012	0.11	(0.02)	(0.03)
Cesium			(0.05)							
Chromium			0.071	0.37	0.053	(0.02)	(0.11)	0.023	(0.026)	(0.032)

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Cobalt			0.007	0.012	0.010	0.0012	(0.006)	0.008		
Iodine			0.035	1.97	0.060		0.026	0.006		
Lead			0.38	0.061	0.10	(0.007)	0.140	0.023		
Mercury			0.005	0.004	0.0019	0.0011	0.003	0.0004	(0.004)	(0.002)
Molybdenum			0.08	0.247	0.76	0.02	0.252	0.70	(0.55)	(0.29)
Nickel			0.05		0.13	0.02	0.158	0.17	(0.2)	
Phosphorus			0.836*	1.001*	0.219 *	178	171	0.290*	0.137*	0.108

SRM	**8412**	**8413**	**8414**	**8415**	**8418**	**8432**	**8433**	**8436**	**8437**	**8438**
Description	**Corn Stalk (Zea mays)**	**Corn Kernel (Zea mays)**	**Bovine Muscle Powder (Beef)**	**Whole Egg Powder**	**Wheat Gluten**	**Corn Starch**	**Corn Bran**	**Durum Wheat Flour**	**Hard Red Spring Wheat Flour**	**Soft Winter Wheat Flour**
Unit of Issue	**(34 g)**	**(47 g)**	**(50 g (2))**	**(35 g)**	**(50 g)**	**(50 g)**	**(50 g)**	**(50 g)**	**(50 g)**	**(50 g)**
Rubidium			28.7		(0.4)		0.5	2.0		
Sulfur			0.795*	0.512*	0.845*	(200)	860	0.193*	0.183*	0.126*
Titanium					(2)			(5)		
Tungsten						(0.001)			(0.01)	
Vanadium			(0.005)	0.459	(0.04)		0.005	0.021	(0.02)	(0.03)

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